

Having described the invention, the following is claimed:

1. A resistor foil, comprised of:
 - a copper layer having a first side and a second side;
 - an intermediate layer having a thickness of between 5 Å and 70 Å on said first side of said copper layer;
 - a first layer of a first resistor metal having a thickness of between 50 Å and 2 µm on said intermediate layer; and
 - a second layer of a second resistor metal having a thickness of between 50 Å and 2 µm on said first layer of said first resistor metal, said first resistor metal having a resistance different from said second resistor metal.
2. A resistor foil as defined in claim 1, wherein said first resistor metal is selected from the group consisting of aluminum, zinc, nickel, nickel/chromium, nickel/chromium/aluminum/silicon alloy, titanium, vanadium, chromium, tantalum, iron, manganese and alloys, oxides, nitrides and silicides thereof.
3. A resistor foil as defined in claim 2, wherein said second resistor metal is selected from the group consisting of aluminum, zinc, nickel, nickel/chromium, nickel/chromium/aluminum/silicon alloy, titanium, vanadium, chromium, tantalum, iron, manganese and alloys, oxides, nitrides and silicides thereof.
4. A resistor foil as defined in claim 3, wherein said first resistor metal is different from said second resistor metal.
5. A resistor foil as defined in claim 4, wherein said first resistor metal is nickel/chromium/aluminum/silicon alloy.
6. A resistor foil as defined in claim 5, wherein said second resistor metal is tantalum oxide.
7. A resistor foil as defined in claim 1, wherein said intermediate layer is comprised of at least one tiecoat layer comprised of a material selected from the group consisting of zinc, nickel, palladium, titanium, tantalum, aluminum, iron, vanadium, chromium, chromium-based alloys and nickel-based alloys, and combinations thereof.
8. A resistor foil as defined in claim 1, wherein said intermediate layer is comprised of at least one stabilizer layer comprised of one oxide of a metal selected from the group consisting of zinc, nickel, palladium, titanium, tantalum, aluminum,

iron, vanadium, chromium, chromium-based alloys and nickel-based alloys, and combinations thereof.

9. A resistor foil, comprised of:

a copper layer having a first side and a second side;

a first layer of a first resistor metal having a thickness of between 50 Å and 2 μm on said copper layer; and

a second layer of a second resistor metal having a thickness of between 50 Å and 2 μm on said first layer of said first resistor metal, said first resistor metal having a resistance different from said second resistor metal.

10. A resistor foil as defined in claim 9, wherein said first resistor metal is selected from the group consisting of aluminum, zinc, nickel, nickel/chromium, nickel/chromium/aluminum/silicon alloy, titanium, vanadium, chromium, tantalum, iron, manganese and alloys, oxides, nitrides and silicides thereof.

11. A resistor foil as defined in claim 10, wherein said second resistor metal is selected from the group consisting of aluminum, zinc, nickel, nickel/chromium, nickel/chromium/aluminum/silicon alloy, titanium, vanadium, chromium, tantalum, iron, manganese and alloys, oxides, nitrides and silicides thereof.

12. A resistor foil as defined in claim 11, wherein said first resistor metal is different from said second resistor metal.

13. A resistor foil as defined in claim 12, wherein said first resistor metal is nickel/chromium/aluminum/silicon alloy.

14. A resistor foil as defined in claim 13, wherein said second resistor metal is tantalum oxide.